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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,941	06/28/2001	Eric J. Horvitz	MS171138.2	6296

27195 7590 06/03/2004

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EXAMINER	
LE, DEBBIE M	

ART UNIT	PAPER NUMBER
2177	

DATE MAILED: 06/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/893,941	HORVITZ ET AL.	
	Examiner	Art Unit	
	DEBBIE M LE	2177	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 June 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-50* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6 and 10-50* is/are rejected.

7)☒ Claim(s) *7-9* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 1/14/02 is in compliance with the provisions of 37 CFR 1.97 and has considered by the examiner.

Specification

Abstract of the Disclosure is objected. See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 47-48 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 47-48 are objected because a single claim which claims both an apparatus and the method steps of using the apparatus is indefinite under 35 U.S.C 112, second paragraph. This type of claim is indefinite because it fails to positively recite the boundaries sought for protection. The metes and bounds of the claim cannot be determined because it is unclear as to which category of subject matter sought or protection.

Claim 50 recites the limitation "the priority " in lines 4 and 8. There is insufficient antecedent basis for this limitation in the claim.

Claim 50 recites the limitation "the urgency score" in lines 5 and 9. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-3, 10-50 are rejected under 35 U.S.C. 102(e) as being anticipated by Aronson et al (USP 6,654,787 B1).

As per claim 1, Aronson discloses a system for personalizing an information classifier, comprising:

a first classifier (filter), pre-trained with training data (static), operable to produce a first measure associated with a message classification (col. 5, lines 50-67);

a second classifier (filter), trained with adapting data (dynamic), operable to produce a second measure associated with the message classification (col. 6, lines 1-9); and

a combining component adapted to combine the first measure and the second measure to produce a third measure associated with the message classification (set of rules be combined, col. 7, lines 39-46).

As per claim 2, Aronson teaches a weighting component adapted to assign a first weight to the first measure and a second weight to the second measure (col. 7, lines 10-17); and

the combining component further adapted to combine the first measure and the second measure to produce the third measure associated with the message classification, based, at least in part, on the first measure, the second measure, the first weight and the second weight (col. 7, lines 18-45).

As per claim 3, Aronson teaches further comprising an aging component adapted to modify the relevance of one or more messages based, at least in part, on time-based information associated with a message; and an adapting component operable to modify the second classifier (col. 6, lines 30-67).

As per claims 10 and 11, Aronson teaches where the first classifier and the second classifier are implemented in one component and separate components (fig. 8).

As per claim 12, Aronson teaches where the training data employed in training the first classifier includes at least one of a header structure, an indicia of junk mail, a percentage of non-alphanumeric characters, capitalization patterns, relationships in an organization chart, length of messages, times of messages, dates of messages, tense usage, presence of questions and number of questions (col. 4, lines 58-67).

As per claim 13, Aronson teaches where the adapting data includes at least one of an explicit data set and an observation data set (col. 9, lines 1-17, col. 6, lines 30-43).

As per claims 14 and 15, Aronson teaches where the explicit data set comprises one or more pre-determined messages to be classified by a user of the system, where the user classifications of the pre-determined messages are employed in adapting the second classifier and where the observation data set comprises one or more messages received by a user of the system (col. 5, lines 22-48) .

As per claim 16, Aronson teaches the observation data set further comprising action data associated with the one or more messages received by a user of the system (col. 8, lines 46-67).

As per claims 19-21, Aronson teaches where the first, second and third measure is associated with at least one of a probability that the message has a known classification type, the priority of the message and the urgency score of the message (col. 6, lines 44-54).

As per claim 22, where the third measure is computed using the Formula F = m1(I - w) + m2(w), where m1 is the first measure, where m2 is the second measure, where w is the weight assigned to the second measure and where (1-w) is the weight assigned to the first measure (mathematical, col. 7, lines 38-43).

As per claim 23, Aronson teaches where the third measure is normalized to a range associated with the range of the first measure and the second measure (numerically higher results, priority weights, col. 7, lines 44-55).

As per claim 24, Aronson teaches where the third measure is employed to determine how an email message should be routed (col. 8, lines 46-64).

As per claim 25, Aronson teaches where the third measure is employed to determine at least one of, when an email message should be routed, when an email message should be sent to a cell phone, when an email message should be archived, when an email message should be encrypted and when an email message should be deleted (col. 4, line 67, col. 5, lines 1-7).

As per claims 26 and 27, Aronson teaches where the weighting component determines the first weight and/or the second weight based, at least in part, on the amount and on the coverage of adapting data that has been employed in personalizing the second classifier (col. Col. 6, lines 1-9, 55-63).

As per claim 28, Aronson teaches where the combining component produces the third measure by applying the first weight to the first measure to produce a first weighted measure and applying the second weight to the second measure to produce a second weighted measure and by combining the first weighted measure and the second weighted measure (col. 7, lines 10-17, 38-45).

As per claim 29, Aronson teaches where the aging component modifies the relevance of one or more messages by manipulating at least one of, a weight associated with a message and a weight associated with one or more pieces of message data (col. 9, lines 1-17).

As per claim 30, further comprising a first data store operable to store at least one of, one or more messages employed in training the first classifying component and one or more pieces of message data employed in training the first classifying component (col. 9, lines 27-40).

As per claim 31, Aronson teaches further comprising a second data store operable to store at least one of; one or more messages employed in personalizing the second classifier and one or more pieces of message data employed in personalizing the second classifier (col. 10, lines 48-62).

As per claim 32, Aronson teaches where the aging component modifies the relevance of one or more messages by removing at least one of, the one or more messages and the one or more pieces of message data from the first data store (col. 11, lines 11-13).

As per claim 33, Aronson teaches where the aging component modifies the relevance of one or more messages by removing at least one of, the one or more messages from the second data store and one or more pieces of message data from the second data store (col. 9, lines 7-10).

As per claim 34, Aronson teaches where the adapting component modifies the second classifier by adjusting at least one of, one or more data stores, one or more data structures, one or more algorithms and one or more rules associated with the second classifier (col. 6, lines 1-9).

As per claim 35, Aronson teaches where the adapting component modifies the second classifier based, at least in part, one a relationship between the first measure and the second measure (col. 6, lines 63-67).

As per claim 36, Aronson teaches data packet (header information) adapted to be transmitted between two or more computer processes comprising:

information related to personalizing an information classifier (col. 6, lines 1-9), the information comprising at least one of weighting data (col. 7, lines 10-17), aging data and adapting data (col. 6, lines 30-42).

As per claim 37, Aronson teaches computer readable medium containing computer executable components of a system for personalizing an information classifier, comprising:

a first classifying component,pre-trained with training data, operable to produce a first measure associated with a message classification (col. 5, lines 50-67);

a second classifying component, trained with adapting data, operable to produce a second measure associated with the message classification (col. 6, lines 1-9);

a weighting component adapted to assign a first weight to the first measure and a second weight to the second measure (col. 7, lines 10-17);

a combining component adapted to combine the first measure and the second measure to produce a third measure associated with the message classification, the combining component basing the combination, at least in part, on the first measure, the second measure, the first weight and the second weight (col. 7, lines 18-45);

an aging component adapted to modify the relevance of one or more messages based and/or one or more pieces of message data, at least in part, on tune-based information associated with a message (col. 6, lines 30-67); and

an adapting component operable to modify the second classifier (user agent, col. 5, lines 22-27).

Claim 38 is rejected by the same rationale as state in independent claim 1 arguments. Morever, Aronson teaches producing a first measure that the message is classified as having one of N characteristics, N being an integer; producing a second measure that the message is classified as having one of N characteristics, N being an integer; combining the first measure with the second measure to produce a third measure that the message is classified as having one of N characteristics, N being an integer (numerically higher results, col. 7, line 44).

As per claim 39, Aronson teaches displaying information associated with personalizing the information classifying process (col. 5, lines 29-40).

As per claim 40, Aronson teaches where displaying information associated with personalizing the information classifying process includes displaying at least one of a measure associated with the degree of personalization associated with generating the second measure and one or more time periods over which the personalizing has occurred (col. 6, lines 30-40, col. 9, lines 14-17).

As per claim 41, Aronson teaches further comprising accepting information associated with personalizing the infonnation classifying process (col. 6, line 63-67).

As per claim 42, Aronson teaches where the information associated with personalizing the information classifying process includes at least one of a size associated with an adapting data set employed in personalizing the classifying process, one or more time period for which the weights assigned to personalization applied to the process employed in generating the second measure is to be manipulated and a point in time to which the process for generating the second measure should be reset (col. 9, lines 1-17).

As per claim 43, Aronson teaches storing at least one of one or more classified messages and one or more message data points; and manipulating the relevance of at least one of the one or more classified messages and the one or more message data points as related to determining at least one of the first and second probabilities based, at least in part, on temporal data associated with the one or more stored classified messages and one or more message data points (col. 6, lines 46-48).

As per claim 44, Aronson teaches where manipulating the relevance of at least one of the one or more classified messages and one or more message data points includes deleting at leas one of the one or more classified messages and the one or more message data points (col. 6, lines 39-43).

As per claim 45, Aronson teaches where manipulating the relevance of at least one of the one or more classified messages and one or more message data points involves changing one or more weights associated with at least one of the one or more classified messages and the one or more message data points (col. 7, lines 28-37).

As per claim 46, Aronson teaches where the N characteristics comprise at least one of the probability that a message is of a known type, a message priority, an urgency score and a computed expected urgency (col. 7, lines 43-49).

Claim 49 is rejected by the same rationale as state in independent claim 1 arguments.

As per claim 50, Aronson teaches

means for producing a first measure associated with a message classification (col. 5, lines 50-67), the first measure being associated with at least one of a probability that the message has a known classification type (col. 6, lines 46-48), the priority of the message and the urgency score of the message (col. 7, lines 10-17);

means for producing a second measure associated with the message classification (col. 6, lines 1-9), the second measure being associated with at least one of the probability that the message has a known classification type (col. 6, lines 46-48),

the priority of the message and the urgency score of the message (col. 7, lines 10-17); and

means for combining the first measure and the second measure to produce a third measure associated with, the message classification (col. 7, lines 38-46), the third measure being produced using the formula F = m1(1- w) + m2(w), where m1 is the first measure, where m2 is the second measure, where w is the weight assigned to the second measure and where (1-w) is the weight assigned to the first measure (mathematical, col. 7, line39-43).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aronson et al (USP 6,654,787 B1) in view of Gross et al (USP 5,283,856).

As per claim 4, Aronson does not explicitly teach a user interface, operable to display information concerning the personalization of the second classifier. However, Gross teaches a user interface, operable to display information concerning the personalization of the second classifier (col. 5, lines 25-46). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references to displaying information concerning the personalization of the second classifier by a user interface because it provides a user with a friendly, efficienctly and quickly to access the data witout learning a complex rule (col. 2, lines 60-63).

As per claim 5, Gross teaches where the information concerning the personalization of the second classifier is displayed as a graph (figs. 1a-10c).

As per claim 6, Gross teaches the user interface further operable to accept information concerning personalizing the second classifier (fig. 4).

Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aronson et al (USP 6,654,787 B1) in view of Androutsopoulos et al (An Experimental Comparison of Naïve Bayesian and Keyword-Based Anti-Spam Filtering with Personal E-mail Messages).

As per claims 17-18, Aronson does not explicitly teach where the first and second classifier employs at least one of a support vector methodology, a naive

Bayesian processing methodology, a sophisticated Bayesian processing methodology, a similarity analysis employing dot product and/or cosine function processing and decision tree processing to produce the first measure. However, Androutsopoulos teaches a naive Bayesian processing methodology for filtering an anti-spam e-mail messages (page 161). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references to the naive Bayesian processing methodology because Bayesian classifier is trained automatically to detect spam messages to produce the legitimate messages. The legitimate messages that can be easily identified from the list of trusted users with a safety nets.

Allowable Subject Matter

Claims 7-9 are allowable over the prior art of record because the prior art of record fails to teach for fairly suggest where the information concerning personalizing the second classifier comprises information related to at least one of the amount of adapting data required before a confidence level is associated with the personalized classifier and the coverage of adapting data required before a confidence level is associated with the personalized classifier.

Claims 7-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DEBBIE M LE whose telephone number is 703-308-6409. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN BREENE can be reached on 703-305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DEBBIE M LE
Examiner
Art Unit 2177

Debbie Le

May 28, 2004.

GRETA ROBINSON
PRIMARY EXAMINER